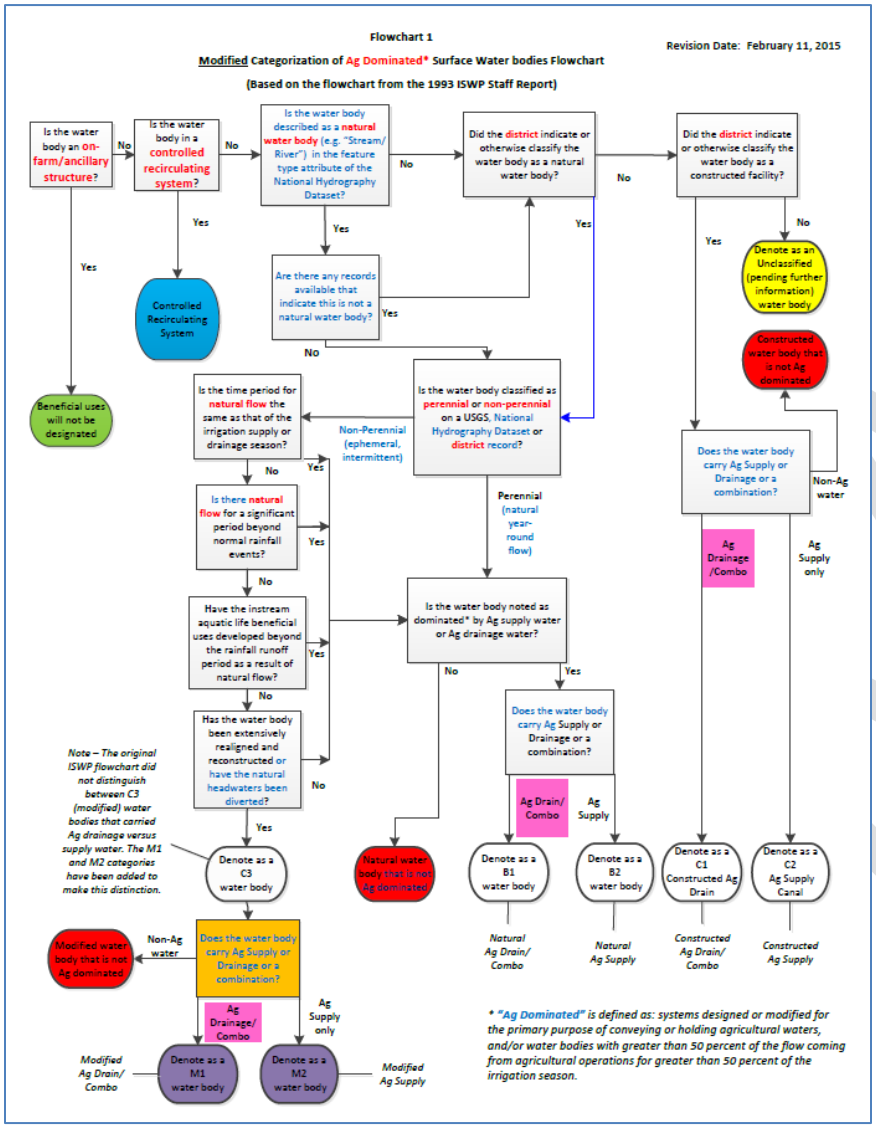
Development of LIMITED-MUN Beneficial Use Designation

Flow Chart 1 –Categorization of Ag Dominated Surface Water Bodies



Water Body Categorization Report and Regional Board Staff review

Table 1. Proposed MUN Beneficial Use Designations *document*)

Water Body Category	Beneficial Use	MUN WQOs
C1 (Constructed Ag Drain/Combo)	**No MUN**	**N/A**
M1 (Modified Ag Drain/Combo)	**No MUN**	**N/A**
C2 (Constructed Ag Supply)	**LIMITED-MUN**	**Narrative and/or Numeric**
M2 (Modified Ag Supply)	**LIMITED-MUN**	
B1 (Natural Ag Drain/Combo)	**LIMITED-MUN**	
B2 (Natural Ag Supply)	**LIMITED-MUN**	
Controlled Recirculating System	**No MUN**	**N/A**

Primary Topic for Discussion

Definitions
Selection Criteria
Water Quality Objective – language

Potential Options for the LIMITED-MUN Beneficial Use Definition:

LIMITED – MUN Beneficial use

1. *Non-potable uses of water for community, military, or individual water supply systems.*

2. *Uses of water that are part of agricultural activities and support non-potable uses of water for community, military, and or individual water supply systems.*

3. *Uses of water for municipal and domestic supply in agriculturally dominated surface water bodies resulting from management activities and/or water treatment beyond conventional treatment.*

   Management activities may include but are not limited to wheeling water year-round, blending, prohibiting ag drainage into the water body and limiting maintenance activities. Treatment beyond conventional may include but not be limited to ion exchange and reverse osmosis.

4. *Uses of water for municipal and domestic supply in agriculturally dominated surface water bodies where full use is limited by physical conditions such as intermittent flow conditions and/or elevated natural background constituent concentrations.*

5. *Uses of water for municipal and domestic supply in agriculturally dominated surface water bodies where full use is limited by inherent conditions such as intermittent flow, management to maintain intended use of a constructed facility and/or constituent concentrations in source water.*

Draft Selection criteria for a LIMITED-MUN water quality objective:

1. Maintain consistency with federal and state water quality laws and policies as applicable (e.g. Sources of Drinking Water Policy, Anti-degradation Policy)

2. Provide the appropriate protection of MUN in an Ag dominated surface water body with consideration given to the current and potential future uses

3. Assure compliance with all relevant water quality objectives downstream.

4. Allow constructed Ag dominated water bodies to be utilized for their intended design and purpose

   Example - Irrigation Supply Channels

5. Make efficient (reasonable) use of Central Valley Water Board and stakeholder resources to develop and implement water quality standards

6. Provide flexibility to address naturally elevated background constituents

Table 2. Draft Water Quality Objective Options for a "LIMITED MUN" Category

Water Quality Objective Options	Brief Description	Level of Consistency with Selection Criteria Ratings = Yes/No or High/Medium/Low						Notes
		1 (Laws)	2 (Potential Use)	3 (Downstream Protection)	4 (Intended Use)	5 (Reasonable use of resources)	6 (Background levels)	
Add new NARRATIVE water quality objective	A narrative water quality objective is given in the Basin Plan for the LIMITED MUN beneficial use Proposed Options: 1. *Accumulation of constituents in the water body must not unreasonably affect non-potable water use.*	Yes	Low	Low	Med	Med	Low	– How is accumulation determined? – "Non-potable" is a very broad term; may be difficult know whether or not the water body is protected
	2. *Accumulation of constituents in the water body must not unreasonably affect non-potable water use or degrade other in-stream or downstream beneficial uses.*	Yes	Low	High	Med	Med	Low	– "Non-potable" is a very broad term; may be difficult know whether or not the water body is protected - Considers in-stream and downstream beneficial uses
	3. *Accumulation of constituents in the water body must not unreasonably affect non-potable water use and cannot preclude potable use with reasonable management and/or treatment.*	Yes	Med	Low	Med	Med	Low	- "Non-potable" is a very broad term; may be difficult know whether or not the water body is protected - "potable use" may result in the use of primary and secondary MCLs as water quality objectives - "reasonable" may require examples
	4. *Accumulation of constituents in the water body above natural background concentrations cannot preclude managed and/or treated use of the water for Municipal or Domestic Supply (MUN) use or degrade downstream beneficial uses*	Yes	Med	High	Med	Med	High	- Need to define "natural background concentrations" - Need examples of "managed and/or treated" and some concept of relative and acceptable economic cost.

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		1 (Laws)	2 (Potential Use)	3 (Downstream Protection)	4 (Intended Use)	5 (Reasonable use of resources)	6 (Background levels)	
	5. *Accumulation of constituents in the water body must be found to provide maximum benefit to the people of the state and not unreasonably affect managed and/or treated use of the water for Municipal or Domestic Supply (MUN) use nor degrade downstream beneficial uses above natural background concentrations.*	Yes	Med	High	High	Med	High	– Includes reference to maximum benefit of the people of the state - Antidegradation – Need to define "natural background concentrations"
	6. *Discharge from these water bodies will not degrade downstream beneficial uses consistent with the state antidegradation policy (SWRCB Resolution No. 68-16).*	Yes	Low	High	High	Med	Low	– Does not protect the water body itself – Already an existing legal requirement
	7. *Water quality will be protected as specified in the state antidegradation policy (SWRCB Resolution No. 68-16).*	Yes	Med	High	Med	Med	Med	– Refers directly to Antidegradation policy – May be able to provide clarification in implementation section – Already an existing legal requirement
	8. *Water quality will be protected consistent with the state antidegradation policy and will not negatively impact any downstream beneficial uses.*	Yes	Med	High	Med	Med	Med	– Refers to Antidegradation policy but without the policy number (in case it ever changes) – May be able to provide clarification in implementation section – Already an existing legal requirement

Table 2. Draft Water Quality Objective Options for a "LIMITED MUN" Category

Water Quality Objective Options	Brief Description	Level of Consistency with Selection Criteria Ratings = Yes/No or High/Medium/Low						Notes
		1 (Laws)	2 (Potential Use)	3 (Downstream Protection)	4 (Intended Use)	5 (Reasonable use of resources)	6 (Background levels)	
Add new NUMERIC water quality objective	A numeric water quality objective is given in the Basin Plan for LIMITED MUN Proposed Options: 1. *Must meet primary MCLs, but not secondary MCLs. (Narrative for nuisance objective will still apply)*	Yes	Med	Med	Low	Low	Low	– Secondary MCLs are for taste, odor and appearance, and do not reflect a human health criteria – Water purveyors still must report exceedances to secondary MCLs in source water to the public
	2. *Must meet primary and secondary MCLs with the exception of: trihalomethanes (short half-life)*	Yes	High	High	Low	Low	Low	– Trihalomethanes have a short half-life and are a low human health threat in waters that are not currently being used for the MUN use. – MCLs are tap water standards and these objectives are restrictive for agricultural practices – Removing trihalomethanes or other constituents would require constituent by constituent scientific justification
	3. *Must meet primary and secondary MCLs, but dissolved fractions can be used in place of total fractions*	Yes	High	High	Low	Low	Low	– Using dissolved fractions reflects the use of filtration in conventional water treatment – Water purveyors use total fractions for reporting secondary MCL values – May be over-restrictive for potential MUN use of the water body itself.

Table 3. Developing the Implementation Program for LIMITED-MUN

Factors to Consider (when determining potential degradation)	Discussion Items/Questions	Proposed Implementation Language
Source and Receiving Water Quality	What type of characterization should be conducted? - Is the source water different from the receiving water (if any)? - Is discharge to water body different than the source water? - Evaluate for natural vs. anthropogenic sources of constituent concentrations? - Other?	Suggestions?
Physical Hydrology	- Constructed or natural water bodies – should we treat them differently (e.g. constructed Ag supply versus Ag dominated natural water body)? - How should water volume and flow patterns be addressed? - Other?	Suggestions?
Current Management (e.g. Conservation, Recycling, Reuse Efforts, Maintenance)	- Is the water body part of a management area for recycling/reuse? - What type of maintenance is required to ensure that the intended purpose of the constructed water body is maintained? Factors to consider to determine maximum benefit: • What are the past, present and probable future beneficial uses of the water body, especially for use as a water supply? • What are the socio-economic costs/impacts of the management activities (both by dischargers and others affected by discharge)? • Are water quality impacts spatially or temporally limited? If so, how likely are they to result in long term or significant reduction of water quality? • What are the environmental impacts of current activities compared to more stringent limitations or discharge prohibitions? Does the activity provide a benefit that would otherwise not be there (e.g. aquatic habitat)? • Other?	1. *Recycling and Reuse efforts are considered a maximum benefit to the people of the state as long as the discharge does not negatively impact downstream beneficial uses.* 2. *Maintenance of a constructed water body for its intended purpose is considered a maximum benefit as long as the discharge does not negatively impact downstream beneficial uses.* Suggestions?

Potential for Contaminant Accumulation within the LIMITED-MUN water body	- What are the surrounding land uses? - What are the sources of discharges to water body? - Are there other regulatory programs in place? - Other?	Suggestions?
Potential Impact on Downstream Beneficial Uses	- Where is the first MUN water body downstream? How far is the LIMITED-MUN water body from the first MUN water body? Allow for attenuation and/or dilution credit for permit limits? - Periodically hold a public review of the number of water bodies designated LIMITED-MUN to evaluate cumulative impacts and include a reopener in permits to include any necessary revisions to permit conditions that result from the evaluation? (e.g. every 10 years?) - Trend analysis? - Other?	Suggestions?

Monitoring and surveillance discussion questions for LIMITED-MUN water bodies –***to be addressed at the next stakeholder meeting on Sept. 24:***

- Trigger for follow-up action:

  To maintain existing conditions and protect downstream beneficial uses, use primary and/or secondary MCLs as a trigger to do an Antidegradation Analysis? And do not use primary and/or secondary MCLs for compliance or enforcement provisions/actions directly on these water bodies?

  What type of information could the Department of Drinking Water or water utilities provide to trigger an evaluation?

- Monitoring requirement:

  Should the requirement for monitoring of discharges from water bodies utilizing Exception 2B of the Sources of Drinking Water also be required for LIMITED-MUN water bodies?

- Coordination with existing programs:

  How will the implementation plan for this Basin Plan Amendment impact monitoring requirements in other programs like the Irrigated Lands Regulatory Program?

- Future discharges:

  Will permits/WDRs specifically address protection of the downstream MUN beneficial use at the next downstream designated water body?

- Other?